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Trabajo de Fin de Máster

CONCEPTUAL COMPLEXES: METAPHORIC AND METONYMIC AMALGAMS

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ABSTRACT

Metaphoric amalgams consist in the integration of two or more metaphors resulting in a unified conceptual package. They have been distinguished from the sequencing or chaining of metaphors without incorporation of the structure of one into another (cf. Ruiz de Mendoza & Galera 2012). Such amalgams have been categorised into *single-source* and *double-source* (Ruiz de Mendoza & Galera 2011). In the former, one of the metaphors becomes part of the source-target structure of another metaphor; in the latter, two metaphors map their source domains onto the same target domain. On the basis of a multisource corpus, the present Master's dissertation revises previous work on these categories, thus solving some analytical problems. This has also resulted in the addition of new analytical categories. This is the case of what I propose to term *binary metaphoric amalgams*. For example, the sentence *The sign warned us against skating on the pond* combines two metaphors by integrating them into a force-dynamic schematic configuration: A PERSON'S WILL IS A FORCE and REGULATIONS ARE COUNTERFORCES, which are based on the AGONIST/ANTAGONIST force schema (Talmy 1988). Here, the integration is based on co-dependency: two metaphors complement each other and act at the same level within an image-schematic complex (cf. Ruiz de Mendoza *et al.*).

Keywords: divided-self metaphor, force dynamics, metaphor, metaphoric amalgam, metonymy

ABSTRACT

Una *amalgama* metafórica consiste en la integración de dos o más metáforas, cuyo resultado es un paquete conceptual unificado. Han sido distinguidas de la secuenciación o cadena metafórica, en la que no hay incorporación de estructura de una dentro de otra (cf. Ruiz de Mendoza & Galera 2012). Dichas amalgamas han sido previamente categorizadas en amalgamas *single-source* y *double-source* (Ruiz de Mendoza & Galera 2011). En las primeras, una de las metáforas pasa a formar parte de la estructura *source-target* de otra metáfora, mientras que en las segundas, dos metáforas proyectan su dominio *source* en el mismo dominio *target*. Tomando como base un corpus de múltiples fuentes, este trabajo de Máster revisa investigaciones previas de estas categorías, solucionando alguno de sus problemas analíticos, lo que ha acabado resultando en la adición de nuevas categorías analíticas. Este es el caso de la que propongo como *amalgamas metafóricas binarias*, como es el ejemplo *The sign warned us against skating on the pond*, que combina dos metáforas integrándolos en un Sistema de dinámica de fuerzas: A PERSON'S WILL IS A FORCE y REGULATIONS ARE COUNTERFORCES, que se basan en el sistema de fuerzas de AGONISTA/ANTAGONISTA (Talmy 1988). En este caso. La integración se basa en la codependencia: dos metáforas se complementan una a otra y actúan al mismo nivel dentro de un mismo esquema de imagen. (cf. Ruiz de Mendoza fc).

Palabras clave: metáfora del yo dividido, dinámica de fuerzas, metáfora, amalgama metafórica, metonimia

1. INTRODUCTION

As is well known, Lakoff and Johnson (1980) argued against the common idea that metaphors are just merely poetical devices and gave initial evidence in support of their pervasiveness in everyday communication. Since then heavy focus has been placed on the analysis and classification of the most conventionalized metaphors in English with scarce systematic research into the interaction of two or more metaphors within a linguistic expression. Some scholars have devoted some attention to the interaction of metaphor and metonymy (e.g. Goossens 1990, 2003, Geeraerts 2003) and to the metonymic grounding of metaphor (e.g. Radden 2000). There is also work on how metaphors can be chained to one another in coherent discourse (e.g. Barcelona 1995) besides very well-known work by the main proponents of Conceptual Metaphor Theory on the organization of metaphoric thought into systems (e.g. Lakoff 1993, Lakoff and Johnson 1980, 1999; see also Kövecses 2010). In recent work, some interest has been shown on what Ruiz de Mendoza and his associates have labeled *metaphoric amalgams* (Ruiz de Mendoza & Galera 2011, 2012, 2014 provide initial theoretical explorations, while Pérez-Hernández & Duvignau 2016, and Pérez-Sobrino 2016, make applications to language learning and multimodal communication respectively). These are patterned combinations into single conceptual packages of otherwise self-standing metaphors and their activity can take place at high levels of conceptualization with an impact on grammar (cf. work by Ruiz de Mendoza and Mairal 2011 on metaphorical constraints on lexical-constructional integration)¹.

My analytical procedure is grounded in the theoretical premises on metaphoric amalgams as laid out in Ruiz de Mendoza and Galera (2011, 2012, 2014). However, a closer inspection of a greater amount of data than used by these authors, whose proposals are programmatic, calls for refinements in their account. Thus, the aim of the present Master's dissertation is to provide a finer-grained study of metaphoric

¹ In this article, I will use the term “metaphoric” to refer to processes (e.g. metaphoric complex, metaphoric amalgam), and “metaphorical” to refer to results (e.g. metaphorical expression).

amalgams. This will be partly accomplished by complementing the approach mentioned above with insights from Lakoff's theory of the *Multiple Selves* (1996), which has shown its productivity to deal with our data. Drawing from online sources, printed works, and audio-visual media, I have classified, motivated, and analyzed a collection of metaphoric amalgams in the categories presented by Ruiz de Mendoza and Galera. These are *single-source amalgams*, in which the source and target domains of a metaphor are built into corresponding domains of another metaphor, and *double-source amalgams*, in which two different metaphorical sources map onto the same target. My data yield more complex analyses in some cases than the ones provided by the authors mentioned above. Also, as part of the results of my research, one more category has been identified: *binary metaphoric amalgams*, in which two different metaphors work together complementing each other. I will provide some representative examples of each category and analyze them in detail.

With this in mind, the structure of this Master's thesis is as follows. Section 2 details the methodology followed and the selection of corpus. Section 3 focuses on the description of the state-of-the-art regarding metaphoric complexes, and offers an introductory overview of the theoretical apparatus used in the elaboration of this paper. Section 4 organizes, outlines, and analyzes a selection of examples that highlight the way in which metaphors interact with one another and with metonymies in each of the resulting categories. Finally, the last section provides the reader with a concluding summary of the main findings of the present research.

2. CORPUS AND METHODOLOGY

The approach taken in this paper follows the theoretical postulates of Cognitive Linguistics, which denies the autonomous cognitive faculty of language, which is argued to emerge from language use (cf. Evans 2014). The concept of what constitutes a corpus is still a matter of controversy within an ongoing effort of the linguistic community to objectify linguistic analysis as much as possible. For the sake of clarity, we are going to adhere to the following definition:

[...] the notion of “corpus” refers to machine-readable collections of (spoken or written) texts that were produced in a natural communicative setting, and the collection of texts is compiled with the intention (1) to be representative and balanced with respect to a particular linguistic variety or register or genre and (2) to be analyzed linguistically (Gries 2009).

This dissertation is based on an exhaustive analysis of examples obtained from the literature on metaphor and metonymy and other studies on linguistics, as well as online resources, multimedia sources and personal communication.

1. The *Master Metaphor List* (Lakoff et al., 1991). This is a collection of metaphors compiled by George Lakoff, Jane Espenson and Adele Goldberg, and later updated by Lakoff, Espenson and Alan Schwartz. It also offers a classification of the metaphors included in it. However, many of the analyses require updating in compliance with the state of the art in metaphor and metonymy theory. It is nonetheless a very useful resource because of its exhaustiveness as a compilation.
2. Another useful resource has been the book *English Verb Classes and Alternations* (Levin 1993). This work comes from the field of formal linguistics, but it offers a wide variety of constructions many of which can be postulated to have a metaphoric or metonymic grounding. For this reason, it has been of great interest for the elaboration of the present dissertation.
3. Some examples were also taken from literary works (*Not the Same Sky*, *Elle*).

4. *The online database COGMOD* (<http://cogmod.lexicom.es/admin.php>), which offers an increasing collection of fully analysed examples of metaphors and metonymies paired with their equivalences across languages.
5. *Google Books*, the search engine specialized in publications by Google.
6. In an attempt to broaden the approach and offer a more actual vision of the English language in use, some examples were taken from audiovisual products such as TV series (*Marvel's Daredevil*, *House of Cards*, *Game of Thrones*, *Better Call Saul*) and films (*Hot Fuzz*, *Drive*, *Marvel's Guardians of the Galaxy*). All of them are contemporary products with an antiquity of less than ten years as of the time of this writing in order to provide a present-day use of the English language.

As to the nature of the analysis, the methodological decision made in the development of this dissertation is to follow a combined deductive and inductive approach. On the one hand, the deductive approach involves starting from a theoretical hypothesis and, with the use of data, confirming, rejecting or reformulating that hypothesis. On the other hand, the inductive approach has been used to draw generalizations resulting in postulates on high-level metaphor and metonymy, and on the real scope of application of the Divided Self metaphor in English, which, in our view, is broader than originally postulated by Lakoff (1996).

The approach provided by this paper, despite the large number of examples collected and analysed, is qualitative. Our main concern has been to produce and analyse representative examples of each category.

3. THEORETICAL FRAMEWORK: COMBINING COGNITIVE MODELS

As mentioned above, the theoretical framework for this article is based upon previous work by Ruiz de Mendoza and Galera (2014) on cognitive modeling and conceptual combination, which builds on the preliminary insights in Ruiz de Mendoza and Mairal (2007, 2008), Mairal and Ruiz de Mendoza (2009), Ruiz de Mendoza and Galera (2011, 2012).

The notion of cognitive model is very popular in Cognitive Linguistics. It was originally put forward by Lakoff (1987: 68), under the label of *Idealized Cognitive Model* or ICM. Essentially, an ICM is an internally consistent knowledge structure that captures part of our experience with the world as construed by our minds. Lakoff distinguished several such structures with implications for linguistic theory. These are the following:

- (i) *Frames*, which capture knowledge about objects and events (e.g. eating at a restaurant).
- (ii) *Image-schemas* are abstract spatial characterizations such as topological orientations (e.g. *up/down*, *front/back*), containment (e.g. *in/out*), whole-part relationships, and motion.
- (iii) *Metaphor* is understood as the result of conceptual mappings or sets of correspondences across discrete conceptual domains such as MORE IS UP, which deals with quantity in terms of height (e.g. *Prices are rising again*).
- (iv) *Metonymy* is defined as a conceptual mapping where one structure affords access to a related structure within the same conceptual domain, as in *He drank two bottles* (CONTAINER FOR CONTENT).

One of the developments of the notion of cognitive modeling has gone in the direction of investigating conceptual interaction patterns involving metaphor and metonymy. Preliminary work is found in Goossens (1990) and Ruiz de Mendoza and Díez (2002). Extensive work applied to all levels of linguistic description is found in Ruiz de Mendoza and Pérez (2011) and Ruiz de Mendoza and Galera (2014). For

the purposes of our study, I will draw especially from Ruiz de Mendoza and Galera's account of *conceptual complexes*, which are addressed in section 3.1. Then, section 3.2 briefly discusses the theory of Multiple Selves (Lakoff, 1996).

3.1. Conceptual complexes

It is not the purpose of this article to discuss all modes of interaction involving metaphor and metonymy. Our focus is on one kind of interaction, i.e. metaphoric amalgams. However, it may benefit the reader to have an outline of the main interaction types. This will allow the reader to situate metaphoric amalgams within the broader context of the different metaphor-metonymy interaction types.

3.1.1. Metaphoric complexes

In Ruiz de Mendoza and Galera (2014), conceptual complexes, which are combinations of metonymies and/or metaphors, are usually classified into three different groups. One consists in the various cases of interaction between metaphor and metonymy, which is developed by these authors on the basis of preliminary work by Goossens (1990) on so-called metaphonymy (see also Ruiz de Mendoza 2014). For example, the metaphoric source in *beat one's breast*, which includes reference to sorrow and guilt, is the result of expanding the partial scenario of breast-beating into a situation where this action stands for an open show of sorrow, which then maps onto any other situation where a similar open show is made without any breast beating. A second group includes several cases of metonymy-metonymy integration. For example, *He has swift fingers* (i.e. He can use his fingers swiftly, typically to steal) involves metonymic domain expansion (INSTRUMENT FOR ACTION) plus domain reduction (ACTION FOR ABILITY TO PERFORM THE ACTION) (cf. Ruiz de Mendoza 2000, for a more detailed analysis of interaction types). The third group is based on the integration of metaphors, which Ruiz de Mendoza and Galera (2014: 96) label *metaphoric complexes*, that is, those that involve any kind of combination

between two or more metaphors. These, in turn, can be split into two categories, i.e. *metaphoric chains* and *metaphoric amalgams*.

In metaphoric chains, the target domain of one metaphor becomes the source domain of another subsequent metaphor. A case in point is supplied by the expression *give someone away*, where *give away*, when applied to people, loses its original meaning of 'bestowal' (in itself the target of a metonymy from the domain of voluntary physical separation) while acquiring the sense of revealing someone's secrets. Two metaphors can be postulated. The first metaphor maps 'dispensing with an object' (source) onto 'dispensing with a person' (target), which in turn becomes the source of a new metaphor which maps onto the idea of betraying a person (i.e. DISPENSING WITH AN OBJECT IS DISPENSING WITH A PERSON + DISPENSING WITH A PERSON IS BETRAYING A PERSON). This second mapping is grounded in the fact that betrayed people feel alienated from those they trusted.

The notion of metaphoric amalgams was first introduced by Ruiz de Mendoza (2008) and it was later brought into the broader picture of metaphorical complexes by Ruiz de Mendoza and Galera (2011), Ruiz de Mendoza and Mairal (2011), and Ruiz de Mendoza and Pérez (2011). This interaction type involves the integration of the conceptual material of two or more metaphors. Two kinds of metaphoric amalgams have been identified so far: single-source metaphoric amalgams and double source metaphoric amalgams. Metaphoric amalgams, which have only been explored programmatically in the literature mentioned above, will be treated in greater detail in section 4, where several use patterns will be put forward. Here, I will make reference to two of the examples put forward in Ruiz de Mendoza and Galera (2011): *He traced my symptoms back to the cause of my disease* and *He beat silence into me*.

The first example is a case of single-source metaphoric amalgam. For expository convenience, in this article it will be contrasted with *A fast-moving bacterial infection killed the boy*. This latter sentence treats a disease as if it were a moving object that can invade and kill a person. However, this metaphor, which can be labeled EVENTS ARE MOVING OBJECTS, is not enough to account for the inferences arising from

the former, where the focus of attention is on finding the cause of the disease. This shift of focus recruits conceptual structure from CAUSES ARE SOURCES (OF MOTION), or more specifically, from THE CAUSE OF AN EVENT IS THE SOURCE OF MOTION (e.g. *Can you find the source of this problem?*). This is possible because of the existence of shared structure between these two metaphors. In the combination, CAUSES ARE SOURCES becomes part of EVENTS ARE MOVING OBJECTS. As a result of this combination, we treat the symptoms of a disease as traces left by a moving object that can be followed up to the starting point of motion. The treatment of causes as sources should not be surprising since it is part of our experience where it is often the case that we see the onset of motion in connection to whatever causes it (e.g. think of a bullet being fired). This is clearly a case of what the cognitive-linguistic literature has labeled a correlation metaphor (cf. Grady 1999; Lakoff and Johnson 1999).

In *He beat silence into me*, someone (the receiver) acquires the property of silence not only as an object but also as the destination of motion. That is, silence is treated as an object that is transferred from the causer of motion (*he*) to the destination of motion (*me*) by means of beating.² The destination of motion is further seen as a bounded region in space, which is suggestive of the idea that an object that enters a person's field of control can become a possession (which, in turn, can have some effect on the person). As a result, we have the interaction of the metaphors CHANGE IS A TRANSFER OF POSSESSION and CHANGE IS (CAUSED) MOTION. The target domain of both metaphors is the same (CHANGE, motivated by psychological impact), and both their source domains map onto it, originating a double-source metaphoric amalgam. There are other metaphorical expressions that follow this pattern: *He put fear into my heart*, *He breathed love into my soul*, *He slapped some common sense into her*. In all of them being forced to acquire a new property is treated as both receiving and taking possession of a moving object.

² It goes without saying that the beating may be either literal or figurative. If it is figurative, another lower-level metaphor can be added to the description affecting the manner of motion component of the more abstract motion schema; for the difference between high and low-level mappings, see Ruiz de Mendoza and Galera (2014: 63-65).

3.1.2. Compound metaphors

Metaphoric amalgams are not the same as *compound metaphors*. This latter theoretical construct, which was put forward by Grady (1997, 2005), is used to refer to combinations of primary metaphors rooted in sensorimotor experience. There are two main differences between each conceptual construct. First, in compounds, but not in amalgams, linguistic expressions profile one of the contributing metaphors, while the other is backgrounded. For example, the sentences *One piece of the theory doesn't fit* and *His theory stands on firm foundations* are cases of the compound metaphor THEORIES ARE BUILDINGS. This metaphor is argued by Grady to consist in the combination of two primary metaphors: ORGANIZATION IS PHYSICAL STRUCTURE and PERSISTING IS REMAINING ERECT. Evidently, the first sentence focuses on lack of organization, while the second zooms in on persistence. Neither metaphorical expression exploits the two primary metaphors at the same time. That is, in compounds, there is no actual integration or fusion between the source and target domains of the contributing metaphors, although the two primary metaphors may be combined in some expressions: *They have built a solid theory* (since buildings are erect structures). It is also possible to find situations where one of the primary metaphors implies (but not necessarily entails) the other: *A single contrary fact can bring down a theory* (in which the theory coming 'down' implies the possible loss of structure). A second difference between metaphoric amalgams and compound metaphors is that in the former there is shared structure between the contributing metaphors. For example, in *He traced my symptoms back to the cause of my disease*, the two source domains are constructed on the basis of motion, with one of them focusing on the existence of a moving object and the other on the visible evidences of the existence of motion. This is not the case in compound metaphors (e.g. physical organization and persistence have no elements in common, although, as noted above, on occasion, one may imply the other: if we destroy a standing object, it generally falls).

3.1.3. Blends

In his latest discussion of metaphorical amalgams Ruiz de Mendoza (2017: 164-155) has pointed out that amalgams are not the same phenomenon as Fauconnier and Turner's (2002) *single-scope* or *double-scope blends* (see Oakley and Pascual 2017 for an updated overview).

In single-scope blends partial structure of one knowledge construct (i.e. one "input space") is built into (and adapted to) the relevant part of the frame of another knowledge construct (another "input space"). For example, if we think of someone's teeth as pearls, we ascribe to (and build into) our vision of those teeth the whiteness and brightness characteristic of pearls. The same logic would apply to any metaphor that does not involve a complex mapping of structure. This would hold both for metaphors based on resemblance, like the teeth-pearls example, and those based on experiential correlations as is the case of MORE IS UP (Grady 1999; Lakoff and Johnson 1999). For example, in the expression *They raised his salary*, the verb "raise" suggests an increase in height that somehow correlates with an increase in the amount of income. In standard Conceptual Metaphor Theory, it is argued that quantity and height correlate in our experience because an accumulation of materials generally brings about an increase in their height (think of a pile of books or of water levels in a container). In terms of blending, height would be regarded as an input space, which is built into quantity in such a way that both become blended in our minds.

In double-scope blends, by contrast, the integration of conceptual structure requires the combination or "blend" to produce its own emergent structure—including a reversal of roles and values and source-target asymmetries— independent of (but relatable to) the one that is supplied by the source and target domains. Take as an example the sentence *If Clinton were the Titanic, the iceberg would sink* (Fauconnier 2005). This sentence was a humorous remark, in 1998, on Clinton's ability to survive all his sexual scandals without much political damage. In Fauconnier's (2005) account, Clinton is the counterpart of the Titanic and the scandal is the counterpart of the iceberg. The blend incorporates much of its organizing frame structure from

the Titanic input space (where a voyage is thwarted by disaster that destroys the ship and most of its passengers) but the crucial causal and event structure is taken from the Clinton scenario: unlike the Titanic, Clinton (surprisingly) survives, which reverses the causality of sinking (in reality, the iceberg sinks the ship) in defiance of the laws of physics.

Another example of double-scope blending, discussed by Grady, Coulson and Oakley (1999), is provided by the sentence *My surgeon is a butcher*. The authors argue that besides the correspondences between the elements of the two input spaces called upon by the expression, the domain of surgery and the domain of butchery (i.e. surgeon-butcher, patient-commodity, scalpel-cleaver, operating room-abattoir, etc.), there is emergent structure not present in either input. This emergent structure takes the form of the surgeon's incompetence in performing surgery. While surgeons are not expected to operate on their patients in the same way as butchers cut up meat, both surgeons and butchers are, in principle, competent in what they do. However, in this metaphor, the surgeon is incompetent by performing surgery in a careless way. This is an emerging element of structure that arises from the blend, where the roles of surgeons and butchers become integrated.

Blending theory was discussed critically by Ruiz de Mendoza (1998) and Ruiz de Mendoza and Díez (2002). These authors argued that the emergent structure ascribed to blends is simply a range of pragmatic implications arising from the cross-domain correspondences. More recently, Kövecses (2011) has pointed out that, while conceptual integration may take place occasionally and holds true of some examples of metaphor, it does not really hold the universal status that the proponents of blending theory give to it. Most examples of conceptual metaphor are best explained in terms of cross-domain mappings rather than the integration of conceptual structure. This observation applies to the example *My surgeon is a butcher*, where it can be argued that the surgeon's and butcher's roles do not really mix up. What we have, from a cognitive perspective, is the understanding of a given surgeon's way of practicing surgery in terms of a butcher's way of cutting meat. The element of "carelessness" arises from this comparison, not from a fusion of roles.

Independently of the controversy as to the theoretical status of conceptual integration processes, the examples of single and double-scope blends given above do not involve amalgams since they do not call for combinations of self-standing metaphors or of components of such metaphors. They simply involve elements of metaphoric source or target domains (the so-called input spaces). This observation adds to two more supplied in Ruiz de Mendoza (2017), who notes that amalgams (i) take place independently of the calculation of meaning implications in the process of blending, and (ii) are based on regular interaction patterns and do not contemplate asymmetries or irregularities of any sort. These reasons render blending theory irrelevant for the purposes of the present research.

3.2. The DIVIDED SELF metaphor

Part of this article draws on the theory of the Multiple Selves put forward by Lakoff (1996). This theory hinges on the existence of a cultural model, grounded in our experience, of the bodily and emotional aspects of humans. In this cultural model, the person is seen as an ensemble of the Subject and the Self. The Subject is the center of consciousness and judgment, while the Self represents the emotional and irrational aspects of a person. On the basis of this assumption, Lakoff postulates the existence of two groups of metaphoric models: one group contains the Consciousness and Control models, and the other the Split Self Compatibility models. The Consciousness and Control group is founded on the premise that, in a normal state of consciousness, the Subject is in control of the Self. This can also be extended into the idea of the “co-location” of both entities being in a normal state of control, which implies that the Self can be projected outside of the Subject. For example, in *Chris hates himself for being so naïve*, ‘Chris’ would act as the Subject, the judging rational entity that knows that naivety is not a desirable feature in that situation, while ‘himself’ would act as the Self, i.e. the aspect of the person that did not act according to what would have been optimal or at least preferable. Thus, the Subject has lost control over the Self. This idea of co-location can be mapped onto

a spatial model in which the horizontal and vertical planes come into action, situating both entities at different points of a line. In turn, the Split Self Compatibility models consist in different Selves, which may or may not be compatible with one another. An example is provided by the sentence *I'm split between my scientific self and my religious self*, where there are two incompatible selves, with the Subject being in the middle.

According to Lakoff, the theory of multiple selves is useful to understand some inference patterns that have consequences for grammar. For example, the sentence *If I were you, I'd hate me* differs in meaning from *If I were you, I'd hate myself* in that in the former *me* refers to the speaker, while in the latter *myself* refers to the hearer in a simulated scenario in which the hearer acts as the speaker would act. In the context in which the speaker simulates to be the hearer, the referent of *me* is precisely the speaker himself. This happens because the speaker's Subject combines with the hearer's Self yielding a hypothetical person that combines the speaker's values and the hearer's interests, i.e. the grammatical subject in *I'd hate me* is not the speaker but the composite entity that combines the speaker's Subject and the hearer's Self.

The examples examined in this research reveal that the Divided Self metaphor is not necessarily a metaphorical isolate. It combines with other metaphors and with combinations of metaphors thus accounting for a communicatively relevant array of meaning effects and the lexical and grammatical choices underlying them.

4. REVISITING METAPHORICAL AMALGAMS

Metaphoric amalgams, as previously explained, arise from the interaction between two or more metaphors in which there may or may not be integration of conceptual structure. Following previous classifications, this paper categorizes metaphoric amalgams into *single-source metaphoric amalgams*, *double-source metaphoric amalgams* (Ruiz de Mendoza and Galera 2014), to which it is possible to add a third new category, termed *binary metaphoric amalgams*, to be treated in section 4.3. The analyses of our examples will make extensive use of the Divided Self metaphor, as also mentioned above.

4.1. Single-source metaphoric amalgams

As briefly introduced in 3.1.1, in a single-source metaphoric amalgam, one metaphor becomes part of the source-target structure of another metaphor (Ruiz de Mendoza & Galera 2011: 18). In its most basic form, this combination incorporates structure of one metaphor onto another with which it shares some relevant elements. This is the situation examined in 3.1.1.

An interesting instance of a single-source metaphoric amalgam is provided by the sentence *My boss is a pig* (cf. Ruiz de Mendoza 2017). A superficial analysis of this example might account for it in terms of one single metaphor, i.e. PEOPLE ARE ANIMALS (cf. Lakoff & Turner 1989: 196; Kövecses 2010: 153). It is also possible to analyze it, as Kövecses (2011) does for similar metaphors, in terms of a combination of metaphor and metonymy whereby the whole category designated by the source ('pig') stands for one of its idiosyncratic properties ('filth'). However, the analytical situation is still more complex since the meaning implications of this expression go beyond the domain of physical dirtiness into the domain of ethics. In normal circumstances, we would use *My boss is a pig* to express the lack of morality of a person. There is a logic behind this use, since pigs are filthy (they are typically covered with mud containing their own excrement), and in English filthiness is

commonly associated with immorality (cf. *dirty business*, *dirty hands*, *dirty little secrets*) while cleanliness is suggestive of morality and a good reputation (e.g. *His hands are clean* ‘He is innocent’, *He came out clean in the investigation* ‘unincriminated’) (see Lakoff 2003: 76). Most people will find a pig’s smell revolting. Experientially, a pig’s stench is the effect of its habits (the cause). Also, many people find immoral behavior (cause) likewise revolting (effect). In this case, “pig” is used metonymically (CAUSE FOR EFFECT). This association of similar effects gives rise to an association of their different underlying causes, which is exploited by the metaphor. Thus, by saying *My boss is a pig*, we not only treat a person as if s/he were an animal (basically, through an exploitation of the metaphor PEOPLE ARE ANIMALS, likely in combination with the metonymy CATEGORY FOR PROPERTY), but we also focus our attention on the typical characteristic of pigs as particularly dirty and revolting animals, like immoral people, thereby invoking IMMORALITY IS FILTH. Figure 1 represents the interaction between the two metaphors.

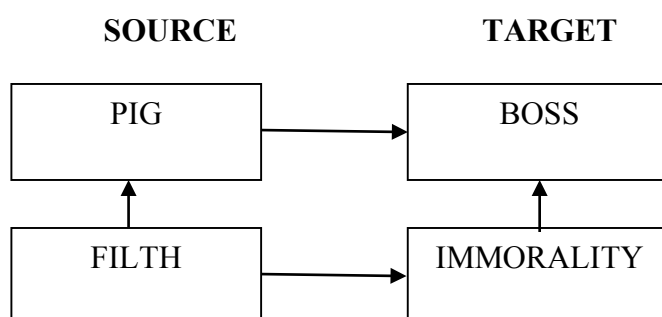


Figure 1. *My boss is a pig*

Another case of a single-source amalgam is illustrated by the sentence *I got an idea*. In this frequently employed expression, ideas are seen as something that you can possess. Possession gives the owner access to the object, which can thus be perceptually explored. Perceptual exploration maps metaphorically onto intellectual understanding. That is, if one gets the idea, you own it, and as a result you understand the problem and you can work on a solution. Here there is also an amalgam of two metaphors, i.e. UNDERSTANDING IS PERCEPTUALLY

EXPLORING AN OBJECT, and IDEAS ARE OBJECTS (THAT YOU CAN POSSESS). The latter is mapped onto the source-target structure of UNDERSTANDING IS OBTAINING A POSSESSION, thus resulting in a single-source metaphoric amalgam. This is shown in Figure 2:

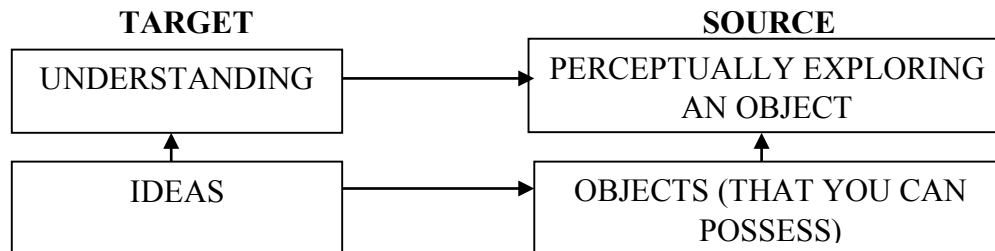


Figure 2. *I got an idea.*

A third example of single-source amalgams is seen in the sentence *She was shattered by his death*. The grief the subject feels for the loss of a loved one is interpreted figuratively as making her emotional self break into pieces in the same way as a piece of brittle glass. This situation is initially captured by the metaphor EMOTIONAL SELF IS A BRITTLE OBJECT. However, this label does not reflect some of the meaning implications of this sentence. Because of her grief, the subject is in a state of emotional instability that impedes her from normal functioning in her activities. Thus, being in a state of shock is represented in the sentence as being shattered. We are relating structural integrity with the cohesion of the emotional self of a person, which can be expressed with the metaphor COHERENT IS WHOLE. This is integrated into the structure of the main metaphor, as reflected in Figure 3.

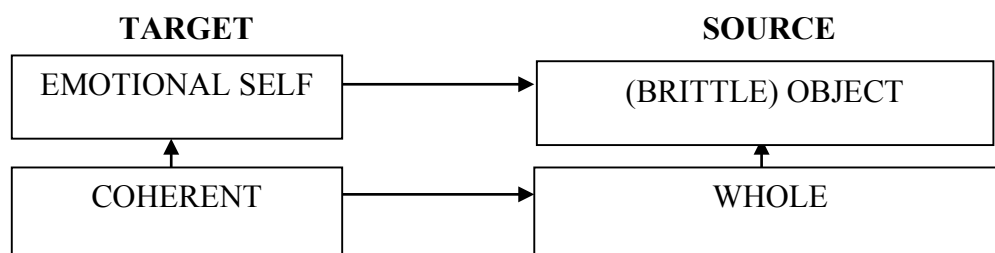


Figure 3. *She was shattered by his death.*

An additional example of single-source amalgams can be found in the resultative sentence with a fake-reflexive object *He pulled himself free* (Simpson 1983; Peña 2016), in the sense of ‘he released himself from a situation of restraint (physical, psychological, spiritual, etc.)’. The verb *pull* is defined by the Merriam-Webster dictionary as “to exert force upon so as to cause or tend to cause motion toward the force”. The realization above suggests detachment as a consequence of the application of such a force (whether physical or not). We can pull a door, a chair, or any item towards us with the use of force. This sense of *pull* which involves physical detachment underlies intransitive uses like *He pulled free* (cf. Goldberg & Jackendoff 2004: 559), which involve physical detachment. To this meaning, *pulled himself free* adds the implication that the protagonist found difficulties (e.g. by being entangled) in becoming free. Such an implication arises from the use of the DIVIDED SELF metaphor. Boas (2003: 241-243) has also noted that in resultative realizations involving changes of location, as is the case of *Blair walked himself back to bed*, the agent is depicted as overcoming some kind of obstacle against which he has to use his own will in order to move from point A to point B. This pragmatic effect, however, is absent if the fake reflexive is omitted (cf. *Blair walked to bed*). Boas thus concludes that it is pragmatic factors, instead of semantic or syntactic ones, that motivate the use of the reflexive in the example above (see also Peña 2016: 517-518).

As mentioned in section 3.2, the DIVIDED SELF metaphor splits the person into the Subject, which is the rational and controlling part, and the Self, the irrational and emotional part. The disruption of the co-location between both entities often causes a situation of abnormality that the Subject aims to fix (NORMAL CONSCIOUSNESS AND CONTROL OF SELF BY SUBJECT IS THE CO-LOCATION OF SUBJECT AND SELF). In our example, the Self is “himself”, which is in a state of restraint. The Subject (*he*) is aware of the state of freedom, or normality, and he tries to pull the Self towards himself, achieving co-location, and also the preferred state of freedom. Additionally, by pulling the Self from that situation, another metaphor comes into play: STATES ARE LOCATIONS, or more specifically, A (CAUSED) CHANGE OF STATE IS A (CAUSED) CHANGE OF LOCATION (cf. Lakoff 1993). Freedom is

understood as a location that we pull ourselves to.³ As shown in Figure 4, the source-target structure of NORMAL CONSCIOUSNESS AND CONTROL OF SELF BY SUBJECT IS THE CO-LOCATION OF SUBJECT AND SELF becomes part of the main metaphor, i.e. A (CAUSED) CHANGE OF STATE IS A (CAUSED) CHANGE OF LOCATION.

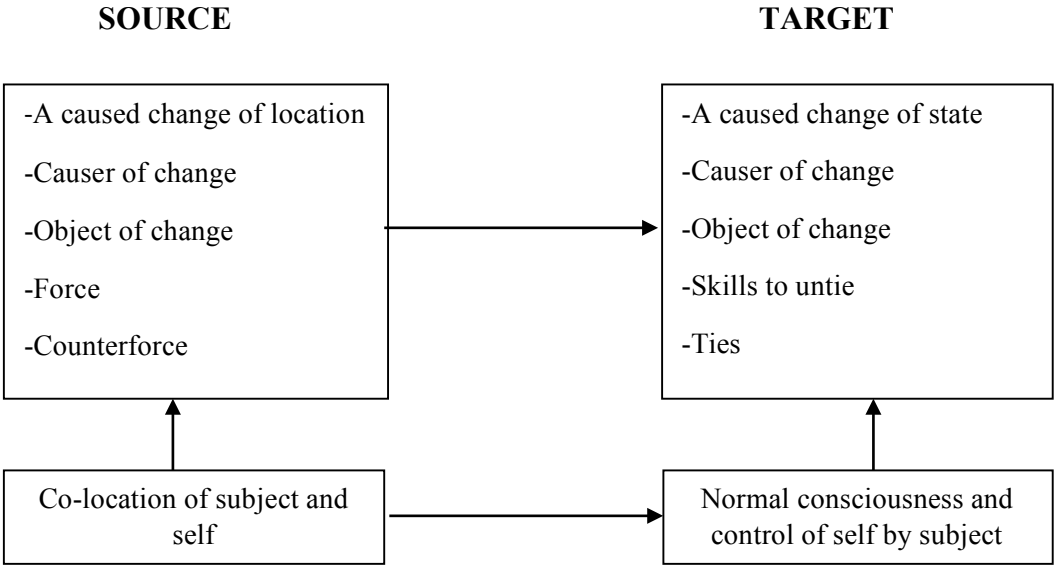


Figure 4. *He pulled himself free*

This analysis only applies to the most literal interpretation of the sentence. However, we can also interpret the sentence as liberating oneself from emotional, intellectual and other non-physical ties. In this other case, there is an additional metaphor that maps physical restraint onto emotional restraint or, in this case, the liberation from it. In consequence, EMOTIONAL/INTELLECTUAL LIBERATION IS PHYSICAL LIBERATION is to be added to the analysis. This metaphor is integrated into the target domain of A (CAUSED) CHANGE OF STATE IS A (CAUSED) CHANGE OF LOCATION, since it expands its range from the physical to the psychological “ties”. This process in which concepts have to be recruited from

³ Note that in this specific case the metaphor A CAUSED CHANGE OF STATE IS A CAUSED CHANGE OF LOCATION is not triggered by a resultative phrase based on a Prepositional Phrase, as is the case of *break into freedom*, but directly on the nature of *pull* as a motion verb. The change of state involved in *pull oneself free* is thus to be interpreted in terms of physical motion: ‘pull oneself into a location in space where one is free’.

additional conceptual domains is called *integration by combination* (cf. Peña 2008; Ruiz de Mendoza 2011: 109).

We can find another example of this combination pattern in the sentence *There is electricity between us*⁴ and its variant *There is a real spark between us*. The meaning of these two sentences involves an intangible connection between the speaker and the hearer, which results in physical tension, resembling an electrical current between their bodies. We relate the social or sexual excitement with electrical energy, which we can correlate with DESIRES ARE FORCES (Lakoff 1996). However, this initial analysis still falls short of supplying a full understanding of all the meaning implications of these expressions. In order to convey their complete connotations, we need to relate human desire and excitement with energy, in this specific case, electricity. Thus, EXCITEMENT IS ELECTRICITY is integrated with DESIRES ARE FORCES. This gives a better account of the expression, but still lacks a final layer: the spark -or electrical energy between both entities- needs to be accounted for. This is evidenced by the use of *between*, which invokes a link schema between the speaker and the addressee, in which there is a correlation between human relationships and physical links. The link image schema is also found in English in other expressions such as *They have chemistry* and *We are bonded*, or *We have bonds between us*. We account for this phenomenon through the metaphor HUMAN RELATIONSHIPS ARE PHYSICAL LINKS. The source and target metaphorical domains of DESIRES ARE FORCES are incorporated into the corresponding domains of the previous metaphor, thus resulting in a single-source metaphoric amalgam (Figure 5).

⁴ Carr D 2009 *The Night of the Gun: A reporter investigates the darkest story of his life. His own* Simon & Schuster: New York.

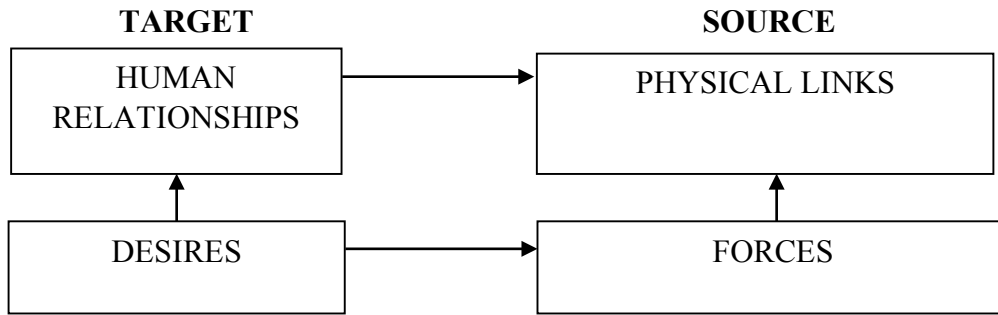


Figure 5. *There is electricity between us.*

Take now the case of the single-source metaphoric amalgam in the sentence *Your reputation precedes you*⁵. Think of this sentence in the context of a film in which the first conversation between the hero and the villain contains an exchange of unveiled quips between the two rivals. The common interpretation of this sentence can be expanded to ‘I get to know about your reputation before I get to know you’. The interest of this example lies in its internal complexity. First, to understand the concept of reputation we have to turn back to the DIVIDED SELF metaphor. The Merriam-Webster dictionary defines *reputation* as ‘overall quality or character as seen or judged by people in general; recognition by other people of some characteristic or ability’. This characteristic is an aspect of the Self, i.e. oneself as perceived by others (it could be one’s honesty, strength, commitment to a cause, or any characteristic that becomes relevant, whether good or bad). Like other aspects of the Self, it is one over which the Subject has no control, since it depends on other people’s value judgments; that is, for all intents and purposes, it is what people know about someone at least until they meet with him. In other words, in the expression above, a person’s reputation figuratively reaches others before they get to personally know that person, which evokes a figurative motion scenario involving a path and a destination. In this scenario, the reputation completes its path before the person does. This happens in compliance with the metaphor GETTING TO KNOW A PERSON IS TRACKING THE MOTION OF THE PERSON’S SELF TO ITS DESTINATION, which parameterizes PROCESS IS MOTION while combining it with

⁵ Ramirez M & Schmidt L (Writer) & Surjik S (Director) 2016 ‘Seven minutes in heaven’ [Television series episode] in Goddard D (Executive Producer) *Marvel’s Daredevil* Burbank, CA: ABC Studios

the DIVIDED SELF metaphor. Let us discuss how this is carried out in some more detail. The process of knowing a person through his reputation is seen in terms of motion. In this process, there is another element, the addressee (*you*), which figuratively comes after his 'reputation' along the same path. Additionally, 'reputation' stands in a metonymic relationship with the Self, in application of a PART-FOR-WHOLE configuration; that is, while a person's reputation designates an aspect of such a person's Self, it also becomes everything others will find relevant about that person. This enables people to take this aspect of the person as if it were the whole Self. *You* is the Subject, which, at the end of the process, may eventually share or not its figurative location with the Self once again, depending on whether the Subject regains control of the Self or not (note that regaining control will generally be desirable when the reputation is assessed negatively by others). In addition to our previous analysis, it is necessary to mention that the integration between PROCESS IS MOTION and the DIVIDED SELF (specifically the metaphor LACK OF CONTROL OF SELF IS LACK OF CO-LOCATION OF SUBJECT AND SELF) is the same as the one in the previous example, that is, it is a case of integration by combination: the MOTION schema is enriched by means of the CO-LOCATION scenario of the DIVIDED SELF.

Once we have established the motion process between the parts of the person, the metaphor KNOWLEDGE IS PERCEPTION is mapped onto the previous amalgam. This makes it possible for us to capture the full range of context-independent meaning implications of the sentence. The way we get to know, understand, and gain knowledge about the reputation of the person in question is by means of the perceptual examination of an image-schematic scenario. In the case under scrutiny, the metaphor KNOWLEDGE IS PERCEPTION is built into PROCESS IS MOTION, thus forming a single-source metaphoric amalgam:

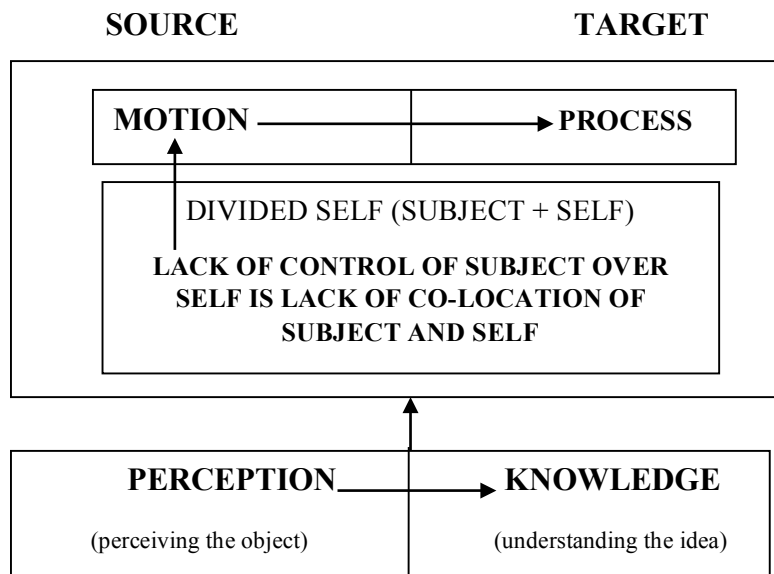


Figure 6. *Your reputation precedes you.*

Another complex example of amalgam involving the DIVIDED SELF metaphor is found in the expression: *Your ego is writing checks your body can't cash*, meaning that the addressee is making promises that he cannot fulfill. This metaphor differs from *Your reputation precedes you* in its different exploitation of the idea of 'lack of control', which here is related not to the locational dissociation between the Subject and Self, but the lack of coordinated action. This lack of coordinated action is caused by the inability of the body (which here stands for the none-motional aspects of the person) to cash the checks written by the ego (the emotional self). Ultimately, what we have is a metaphor in which writing and cashing checks is interpreted as making and fulfilling promises. People only write checks that they know they can pay in the same way that one can only make promises that one knows one can act upon. The main metaphor of this sentence can thus be labelled (WRITING) A CHECK IS (MAKING) A PROMISE. Additionally, there is a dissociation of the addressee akin to what we have seen in previous examples, however with a few differences. The expression "your ego" represents the addressee's (emotional) SELF, in a PART FOR WHOLE metonymic relationship, whose reckless decisions cannot be carried out by "the body", which, on the basis of another PART FOR WHOLE metonymy, stands for the person who uses his or her body for physical action. There is no mismatch in

the location of both figurative entities in this case, thus differing from previous examples. Rather, what we have in this case is a lack of control of the subject over the self, which causes a conflict because of the inability of the subject to live up to the promises made by “the ego” (the emotional self). There is a certain lack of coordinated action between the two entities as a result. We can capture this situation with the metaphor LACK OF COORDINATED ACTION BETWEEN SUBJECT AND SELF IS LACK OF CONTROL OF SUBJECT OVER SELF, into which is built the source-target structure of the metaphor (WRITING) A CHECK IS (MAKING) A PROMISE.

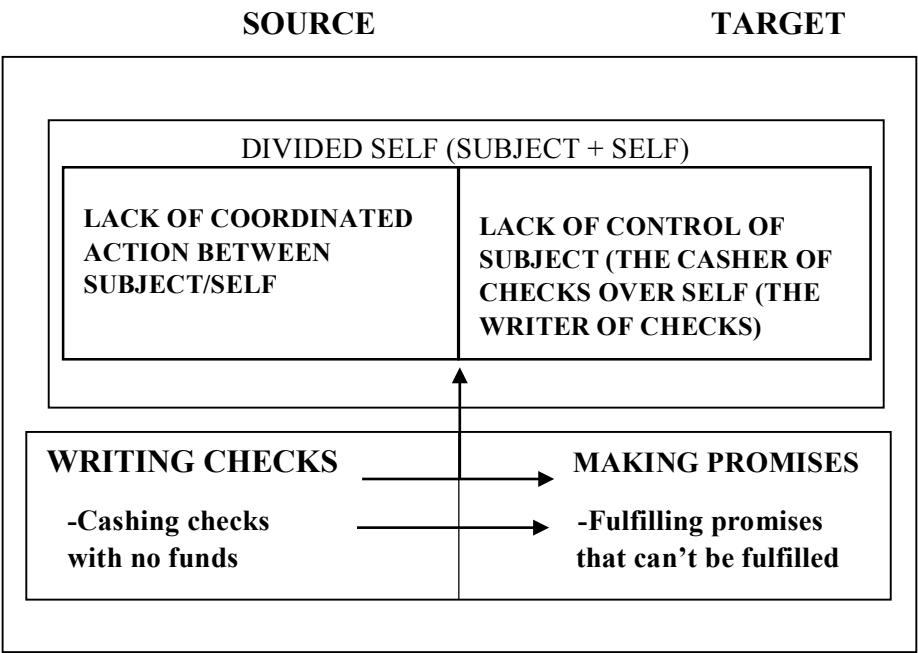


Fig 7. *Your body is writing checks your body can't cash.*

4.2. Double-source metaphoric amalgams

Double-source metaphoric amalgams involve two participating metaphors working at the same level. These metaphors are simultaneously mapped onto the same target domain. The previous literature has based the analysis of this amalgam on the example *He beat silence into me* briefly examined in 3.1.1 above (see Ruiz de Mendoza & Galera 2014: 102 for a similar example).

Let us now discuss some examples from our corpus. One is the expression *to have one's head in the clouds*, as in *She has her head in the clouds, she's unrealistic*.⁶ This idiomatic expression traditionally means 'to be unaware of events happening around oneself because of daydreaming, or being engulfed in one's own thoughts'. The statement that someone has his or her head in the clouds depicts a figurative detachment of the head from the body, resulting in a state of lack of awareness and control of ideas. Bearing this in mind, it is not difficult to find the relation of this depiction to the DIVIDED SELF metaphor. In Lakoff's Theory of the Multiple Selves, one of the Consciousness and Control models of the DIVIDED SELF is the vertical model, in which the Self is conceptualized as being down on earth with the body. This state is the basis of normality to strive for, described by Lakoff (1993: 13) in terms of the metaphor BEING IN A NORMAL STATE IS BEING DOWN THERE. This metaphor is generalized into LACK OF NORMAL CONSCIOUSNESS AND LACK OF CONTROL OF SELF BY SUBJECT IS THE SEPARATION OF SUBJECT AND SELF. As shown in Figure 7, the source domain of this metaphor is mapped onto the same target domain of the other metaphor present in this idiom, LACK OF NORMAL CONSCIOUSNESS AND LACK OF CONTROL OF SELF BY SUBJECT IS BEING UP/SEPARATED FROM THE GROUND.

⁶ White, B.A. (2003). *The Beecher Sisters*. Yale University Press: Yale. p. 183

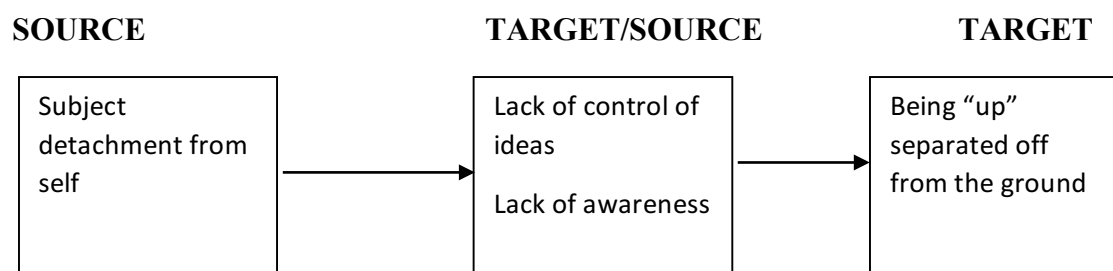


Figure 8. *To have one’s head in the clouds.*

A more complex example of a double-source metaphoric amalgam is the expression *pick someone’s brain* (e.g. *Mind if I pick your brain for a minute?*)⁷, which generally refers to the action of exploring someone’s ideas through questioning. The use of *brain* in this sentence follows the folk model of brain-mind relationships in which the brain is treated as a container of ideas, which can take the form of objects (e.g. *He had “a thousand things” in his heart, “but absolutely nothing” in his brain*)⁸ or substances (e.g. *You get all that stuff out of your brain and then you can concentrate on work and leisure activities more fully*).⁹ It may be argued that the brain-mind folk model is in fact the result of a combination of two metaphors into a single-source amalgam: THE BRAIN IS A CONTAINER and IDEAS ARE OBJECTS/SUBSTANCES. However, this is not so. For two metaphors to be amalgamated, each of them needs to be a self-standing mapping.¹⁰ The brain-container mapping is not independent of the ideas-contents correspondence where the contents take the form of objects or substances (see Figure 9).

⁷ Soltis, A. (2003). *Los Voraces 2019: A Chess Novel*. McFarland. p. 159.

⁸ Walsh, R.A. (2003). *Ugo Foscolo’s Tragic Vision in Italy and England*. University of Toronto Press. p. 71

⁹ <http://www.wbur.org/radioboston/2014/08/28/levitin-organized-neuroscience> (accessed on December 22, 2016).

¹⁰ This is an important point that has not been made explicit by Ruiz de Mendoza and his collaborators, although the cases of amalgam that they put forward are always based on self-standing metaphors.



Figure 9. A BRAIN IS A CONTAINER.

The situation is different in the case of *pick someone's brain*. Here, *pick* suggests using a pointed instrument to break up, separate, and remove matter from a place (cf. *He picked his teeth*). Since ideas can be figuratively “extracted” from brains (e.g. *Where did you get that idea from?*), “picking” can be seen, also figuratively, as one possible extraction method. The complex metaphor that we have is, then, QUESTIONING FOR INFORMATION IS EXTRACTING MATTER FROM A CONTAINER combined with THE BRAIN IS A CONTAINER. In this amalgam, the ideas produced by the brain or the information stored in it is seen as the contents in a container. In a complementary way, obtaining such ideas or information is seen in terms of physical extraction of materials from a place. The result of this amalgam is that we think of questioning for information as getting materials out of a container. The integration process involved in this double-source metaphoric amalgam is schematized in Figure 10.

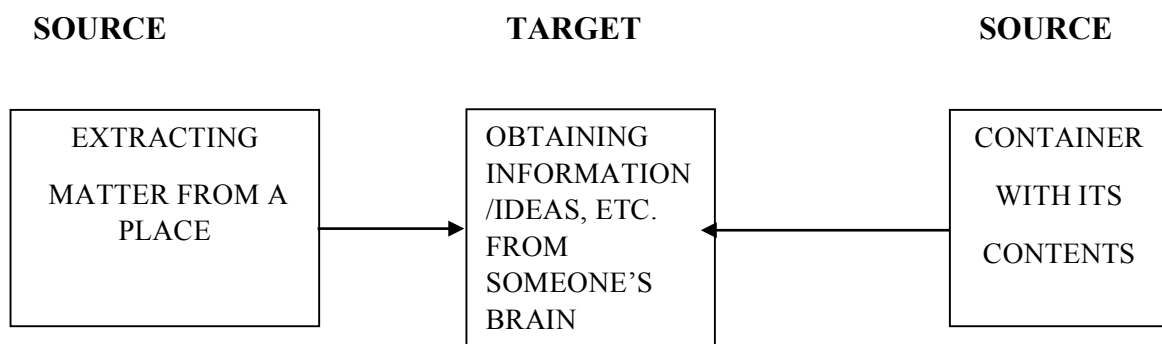


Figure 10. *Mind if I pick your brain for a minute?*

We saw above that Lakoff (1996) touches lightly on the importance of the DIVIDED SELF metaphor for grammar. However, there has been little work on this idea, perhaps because there is a strong tendency to think of reflexive pronouns as mere grammatical devices. The work on fake resultatives by Boas (2003) and Peña (2016) mentioned above is a step forward in this respect. To this work, we may add some observations on the *virtual reflexive construction*, which is exemplified by Levin (1993: 84) by means of sentences like *This meat cuts itself*, *This silver polishes itself*, and *This window just opens itself*. The meaning of this construction is very similar to that of the inchoative and middle constructions, but the range of verbs that combine with it is more restricted. It may be useful to compare *The window opened* (inchoative) and *These windows open nicely* (middle) with *This window just opens itself* and *The window opened itself* (virtual reflexive). The inchoative and middle constructions work by making the object of an action appear as the grammatical subject, endowing them with an “agent-like” value (Heyvaert 2003: 132; Radden & Dirven 2007: 290; Ruiz de Mendoza 2008: 142).

In a sense, the inchoative and middle constructions could be regarded as “pretense” constructions, since they give the false appearance that the semantic object is actually an agent (when the action has an affected object, as in *The glass broke*) or an actor (or doer of the action with a non-affected object, as in *This book reads easily*). Of course, both speaker and hearer know that there is a real agent. These constructions only play down the agent’s role and draw the hearer’s attention to the action itself, which is presented as if it were a process. The same holds for the virtual reflexive construction, which presents the object as the agent of an action that affects the object. There are other pretense constructions, like the instrument-subject construction (*This oven bakes great cakes*), the cause-subject construction (*The letter established his innocence*; cf. Peña 2015: 1247-1302), and the locative-subject construction (*The garden swarmed with bees*; cf. Levin & Rappaport Hovav 2005: 186-187) where other elements of the action scenario other than the object are presented as if they were the doers of the action. However, we will focus our attention here on the relationship between the virtual reflexive and the inchoative and middle

pair because they all share a common pretense, i.e. the idea that the semantic object does the action.

The inchoative and middle constructions have been treated by Ruiz de Mendoza and Peña (2008) as being motivated by metonymy: PROCESS FOR ACTION (*The door opened*, whose target is 'Someone opened the door') underlies inchoative constructions, while the double metonymic shift PROCESS FOR ACTION FOR RESULT holds for middle constructions; the latter can highlight either the process (*The window opened easily*, i.e. 'It was easy (for us) to open the window') or the result (*The window opened well*, i.e. 'Someone opened the window well'). The virtual reflexive construction is very close in meaning to the inchoative and middle constructions. Consider *This book reads itself*, which is discussed in Postal (2010: 171) from a formal perspective under the more general label of reflexive passive. According to Postal, the meaning of this construction corresponds to the meaning of a middle construction with an explicit evaluative component assessing the process: *This book reads easily*. Postal further argues that middle constructions are but reflexive passives (which correspond to Levin's virtual reflexives) with invisible reflexives. This claim emphasizes the similarity in meaning between the two constructions, but it falls short of explaining why not all middle constructions can be converted into fake reflexive constructions and vice versa. In my view, a better explanation should focus on the non-formal aspects of the two construction types. The middle construction is used to assess either the processual or resultative aspects of an action scenario while de-profiling the agent. The virtual reflexive construction is also evaluative too, but it does not focus on one or another aspect of the action but on the whole action itself. In addition, the virtual reflexive construction makes more emphasis than the middle construction on the evaluative ingredient, which is always positive (cf. **This book doesn't read itself*, but *This book doesn't read easily*). This difference in meaning is captured by means of a metaphoric complex involving the personification of the object of the action and the DIVIDED SELF metaphor. The licensing factor for this metaphoric complex to be activated is the high-level metonymy EFFECT FOR CAUSE. Let us briefly discuss how this happens.

The basic meaning of *This book reads itself* is that reading the book is a pleasurable, effortless activity. These features of the book-reading event are the effect element of such an event and they stand for whatever it is that causes them. The cause is internal to the book itself, i.e. there is something in its contents that makes them easy and enjoyable. But the target meaning of the expression goes beyond this meaning implication. The idea to be conveyed is a hyperbolic one: the book is easy and likeable to an extreme. The conceptual strategy to achieve this intended meaning impact is to think of the book-reading event as if it required no human involvement. This takes place through an amalgam of (metaphorical) personification and the DIVIDED SELF metaphor. Through the personification, the internal cause is treated as if it were an external cause with an external actor. In this way, the object of reading, i.e. the book, is endowed with agentive qualities. At the same time, through the DIVIDED SELF metaphor the new agent is seen as acting on itself. Since the true actor (a human being) has been de-profiled, the action is seen as being carried out without external intervention, as if it happened by itself; by implication, an action that needs no external intervention is extremely easy in evaluative terms. It is in this way that the evaluative component is hyperbolically enhanced well beyond what is the case in the middle construction in *This book reads easily* (see Figure 11).

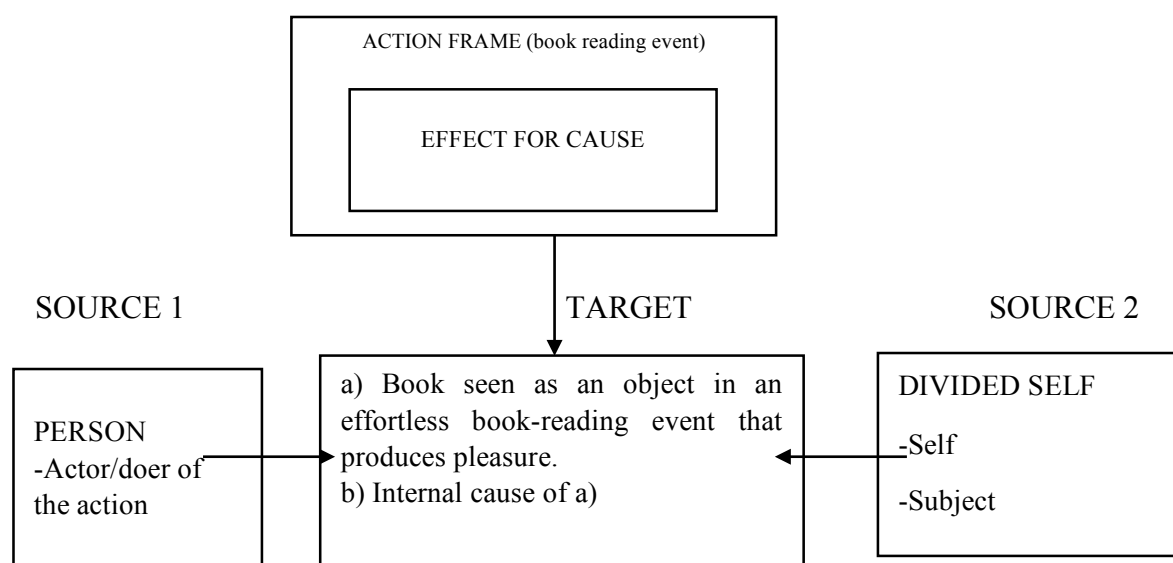


Figure 11. *This book reads itself.*

4.3. Binary amalgams

There are some cases of interaction in our corpus in which neither of the two metaphors has priority over the other and both operate within the boundaries of the same schema. This phenomenon can be labelled binary amalgam. A binary amalgam is different from a single-source metaphoric amalgam, since in the former, unlike what is the case in the latter, there is no merging of one of the metaphors into the source-target structure of the other. Binary amalgams also differ from double-source metaphoric amalgams because the metaphors involved in the amalgam, even though neither is subsidiary to the other, do not map onto the same target domain. An example of a binary amalgam is provided by the sentence *The regulation clashed with his intentions*. The intentions of the subject in this sentence are seen as if they were a moving object propelled by a motion-causing force, whereas the regulation is an obstacle to such motion that blocks the object from reaching its goal. On a very basic level of analysis we would incorporate the metaphor ACTION IS SELF-PROPELLED MOTION, and more particularly one of its ramifications, i.e. OBSTACLES TO ACTION ARE OBSTACLES TO MOTION. The presence of the obstacle impeding motion would require the incorporation of the BLOCKAGE schema, which makes reference to the experience of obstacles which block or resist some force (Peña, 2008). In this particular example, however, this head-on clash is a special kind of obstacle as both kinetic forces act in opposite directions. Following the discussion in Kövecses (1990: 153-154), on a subsequent level of analysis, what we have here is a will-counter-will relationship, which is presented in terms of a force-dynamic metaphor. Talmy (1988) introduced the notion of the force schema into semantic description. In his account, an AGONIST (or FORCE) is opposed by an ANTAGONIST (or COUNTERFORCE). The regulation, which existed before the subject's intentions, is the FORCE. It moves along its designated path in a direction towards its destination (GOALS ARE DESTINATIONS). Opposed to this FORCE, there is an ANTAGONIST (COUNTERFORCE), in this case the person's will, which acts against the FORCE and blocks it from reaching its destination. As can be seen

from this description, the metaphor LAWS AND REGULATIONS ARE FORCES complements the metaphor A PERSON'S WILL IS A COUNTERFORCE in such a way that neither of them has prominence over the other, which precludes this interactional schema from fitting into any of the previous categories for amalgams (see Figure 12).

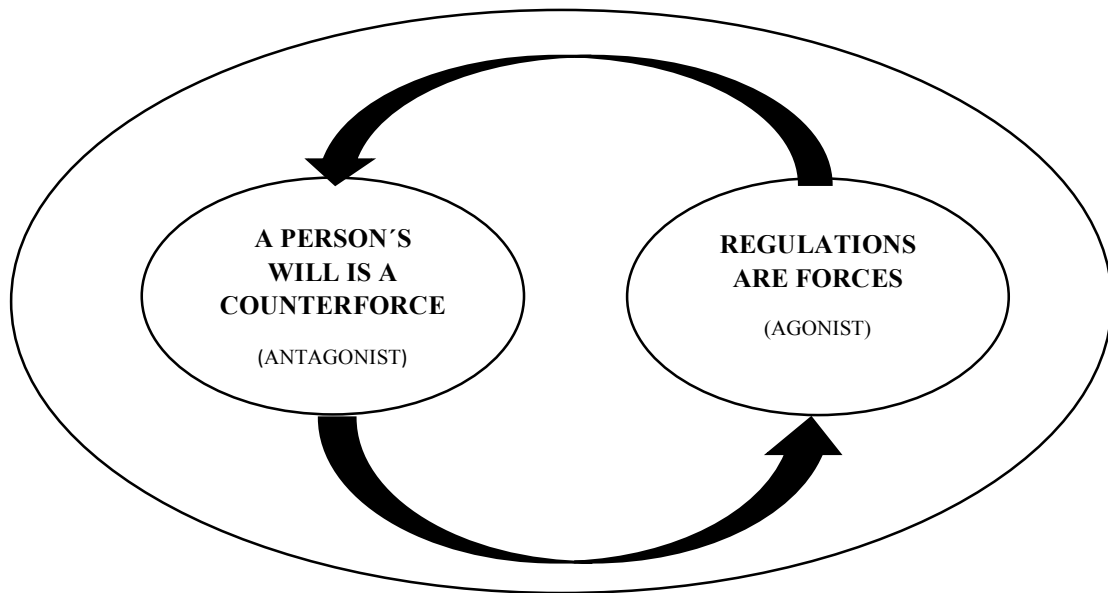


Figure 12. Binary amalgam system.

An additional example of binary system is found in the sentence *She could bend his will*, in which the subject is seen as being able to mold a person's will as if it were a malleable object. A solid object has an internal force, a resistance, which keeps its shape and gives the object its properties. However, in this example the subject ("she") is able to "bend" it figuratively. What this expression does is ascribe physical properties to a psychological event. In this event, the subject has a psychological "impact" on another person in such a way that such a person will change his will. Note that "bending" someone's will is the equivalent of (i.e. stands for) forcing a person to change, which is in essence a metonymy. This situation involves once again a clash between a FORCE and a COUNTERFORCE. In this case, 'his will' is

the COUNTERFORCE to the FORCE that is being applied by the subject, with the metaphors A PERSON'S WILL IS A COUNTERFORCE and PSYCHOLOGICAL FORCES ARE PHYSICAL FORCES interacting at the same level.

On a related note, let us discuss the example *Reagan brought pressure to bear upon his cabinet*. In this sentence, a clear confrontation between the political "forces" of the late President of the United States and his cabinet are highlighted. Once again, a force dynamics schema is used to represent this clash between psychological forces as an agonist and an antagonist, or a force and a counterforce. Reagan applies his political "force" upon his cabinet in order to achieve his particular goals, as if the will of his cabinet were a piece of metal that is being bent in order to fit into a contraption. Reagan's final goal is to divert the course of the will of his cabinet so he can reach his initial goal as close as possible. Again, this example is a case of the metaphor PSYCHOLOGICAL FORCES ARE PHYSICAL FORCES in combination with A PERSON'S WILL IS A COUNTERFORCE.

Another example of binary amalgam is provided by the sentence *The sign warned us against skating on the pond* (Levin 1993: 38). In this example, skating on the pond is presented as potentially dangerous, which is the reason for the warning sign. People who would like to skate on the dangerous pond are that way dissuaded from doing so. Strictly speaking, it is not the sign itself (i.e. the medium for the message) that issues any warning, but the people in charge of producing safety regulations for citizens (e.g. the local city council). This is a case of complex metonymic thinking, elsewhere referred to as a metonymic chain (Ruiz de Mendoza and Galera 2014): the medium used to publish a regulation stands for the regulation, which in turn stands for the issuer of the regulation. In the realization above, we understand that the speakers' will of skating on the pond is countered by the sign that prohibits them from doing such action. In its default interpretation, this sign materializes a regulation, which reminds people that skating is forbidden and a violation of such warning will bring consequences. This regulation is a force that acts against the force represented by the person's will, metaphorically speaking: in principle, nothing physically impedes the person from skating on that pond, but his will to do so is countered by the sign and the regulations it represents. Laws and regulations are

seen as psychological AGONISTS (FORCES) against an ANTAGONIST (COUNTERFORCE), which is a person's will to perform an action. The sign, through a metonymic chain, stands for the regulation or law, and is given the properties of a person, in this case the authorities, since a sign is unable to actively warn us. Thus, the metonymic chain MEDIUM FOR REGULATION FOR AUTHORITY (a case of domain expansion plus domain reduction) interacts with the metaphors A PERSON'S WILL IS A COUNTERFORCE and REGULATIONS ARE FORCES.

The reasons why this is a binary system, as opposed to either of the two previous categories, could be summarized as follows: (i) A PERSON'S WILL IS A COUNTERFORCE and REGULATIONS ARE FORCES are two metaphors that complement each other, none of them being more prominent than the other; thus, this combination cannot be a single-source metaphoric amalgam; (ii) the two metaphors do not map onto the same target domain, so this combination cannot be classified as a double-source amalgam either.

An additional example of a binary amalgam is found in the sentence *Your argument is leading away from the conclusion you want to reach* (Lakoff et al 1991: 125). In this sentence, the conclusion the subject assumes that the hearer wants to achieve is seen as a destination. The metaphor A LOGICAL ARGUMENT IS A FORCE (which "moves" ideas, i.e. causes them to develop according to some logic) works in combination with IDEAS ARE (MOVING) OBJECTS and (ARGUMENTATIVE) GOALS ARE DESTINATIONS. This metaphor is opposed by AN ALTERNATIVE LOGICAL ARGUMENT IS A COUNTERFORCE (which "moves" alternative ideas toward an alternative argumentative goal). This metaphor also teams up with the counterparts within the alternative logical system of IDEAS ARE OBJECTS and (ARGUMENTATIVE) GOALS ARE DESTINATIONS. In this way, we have a more complex picture than provided by our previous examples of binary amalgam. What we have here is a FORCE-COUNTERFORCE binary amalgam where each terms of the binary system is itself made up of further metaphorical complexes. Each complex takes the form of a double amalgam combining two single-source amalgams in the following way (where "<" symbolizes the incorporation of one metaphor into another):

(ARGUMENTATIVE) GOALS ARE DESTINATIONS < IDEAS ARE (MOVING) OBJECTS < A LOGICAL ARGUMENT IS A FORCE

It should be noted that the metaphors (ARGUMENTATIVE) GOALS ARE DESTINATIONS and IDEAS ARE (MOVING) OBJECTS are self-standing in nature, that is, their existence is independent of the matrix metaphor A LOGICAL ARGUMENT IS A FORCE realizing the FORCE-COUNTERFORCE binary system. Thus, GOALS ARE DESTINATIONS can be part of other conceptual systems in the domain of goal-oriented activities such as professions, careers, love relationships, and making business (cf. *We are not going anywhere*, *They hit a dead-end street*, *He getting to the top of the social ladder*). In turn, IDEAS ARE OBJECTS can be found in expressions such as *You need to polish your ideas up a bit more*, *That was hard-hitting truth*, and *He managed to get the idea across easily*. In these expressions ideas are not seen in causal terms, unlike in the example of binary amalgam under analysis.

The force-counterforce relationship is image-schematic in nature, since it involves caused motion along a path and obstacles or impediments to motion. It also involves tension between forces. Such tension may have different consequences. One force may override another, two forces may cancel out each other or one force may cause a path diversion. Our familiarity with tension between forces allows us to interpret non-physical “tension” in terms of the force-counterforce relationships and their consequences. This has been evident in our analysis of the skating notice example. A warning can be used as a social restriction carrying consequences (e.g. penalties) when challenged and disobeyed. Disobedience may also have other consequences in terms of physical injuries (think of the thin ice on the surface of a pond breaking as someone skates on it). A warning is a directive speech act and, as such, it clearly involves a potential speaker-hearer tension. Because of our daily experience with force-counterforce relationships it is not difficult for us to reason about speaker-hearer tension, in whatever degree, in terms of force-counterforce tension. This affects all directive speech act categories, as suggested in Pérez and Ruiz de Mendoza (2002). For example, a command, which is highly impositive, can be

interpreted as a force that cannot be resisted. Requests are less impositive and can be resisted, i.e. there can be potential obstacles to their realization. Threats are as impositive as orders. Only the source of their impositive nature changes: orders are grounded in socially-sanctioned authority, while threats are based on potential hostile action that the speaker thinks the hearer will want to avoid. In terms of metaphor, threats can readily be seen as highly compelling attempts to get around a potential blockage to the course of a force. Advising and suggesting are also ways to get the hearer to change a course of action. But they are milder attempts. In terms of force-dynamics, the hearer's desired course of action cannot be seen as a blockage but as a milder form of resistance that can be easily removed or, alternatively, circumvented. In this approach, we have the following general correspondences between the force image schema and the domain of directivity. Figure 13 simplifies the account in Pérez and Ruiz de Mendoza (2002):

SOURCE	TARGET
Agonist	Speaker
Antagonist	Hearer
Physical course of a force	Social course of action
The agonist exerts force on the antagonist to make it follow a given course	Speaker directs hearer to do something
Degree of force	Degree of directivity
Resultant force balance	Resultant balance of social tension
Physical obstacles	Social and/or personal impediments or restraints

Figure 13. *Correspondences between the FORCE image schema and the domain of directivity.*

Binary amalgams can only occur with the FORCE-COUNTERFORCE schema because this schema is, as far as we know, the only image-schematic configuration

where two of its central elements are profiled simultaneously against the background provided by the rest of elements of the same configuration (MOTION, PATH, SOURCE, DESTINATION). This is not the case with other image-schematic pairs like IN/OUT, UP/DOWN, or PART/WHOLE, which also come in related pairs, simply because the elements of each pair are profiled separately. Thus, if an object is profiled as being inside a container, it cannot be profiled as being outside at the same time; in the same way, what is up is not down and a part is not a whole. But in the case of force-counterforce relations, both conceptual constructs are profiled simultaneously against the background of other relevant force-dynamic constructs (motion, path, destination, etc.) (cf. Talmy 1988, 2000). As a consequence, our data only reveal the existence of binary amalgams in relation to the force-counterforce balance within image-schematic thinking. This observation is consistent with the fact that the force-counterforce image-schematic balance is unique within the list of image schemas identified in the literature (cf. Johnson 1987; Peña 2008). Other image schemas do not work on the basis of equality but of subsidiarity. A case in point is the enrichment of the path schema through the container schema. It is not unusual to envisage the end-point of a path as if it were a container, for example, in figurative expressions like *He went into a depression*, *His name faded into oblivion*, *He drank himself into a stupor*. Other possibilities of combining image schemas on the basis of subsidiarity have been explored in Peña (2008).

5. CONCLUSIONS

The present article has discussed a selection of examples of metaphoric complexes used in contemporary English, all of them drawn from the literature in metaphor theory and the media. The analysis offered here, which refines more traditional analyses within Cognitive Linguistics, provides a glimpse into the complex metaphorical nature of the English language. Even on their everyday use, many metaphorical expressions help to convey a broad range of meaning implications that would be impossible to capture by postulating simple metaphors.

These metaphorical operations do not usually operate alone. They can be either complemented by metonymies, or by other metaphors in what is called *metaphoric complexes*. We have focused our attention on one kind of these complexes: *metaphoric amalgams*. We have analyzed and categorized a collection of examples using Ruiz de Mendoza and Galera's (2011: 17) system of classification of metaphoric amalgams: the most common amalgams, *single-source metaphoric amalgams*, in which the target-source domain structure of one metaphor is integrated into the target-source structure of another metaphor, and *double-source metaphoric amalgams*, in which two metaphorical sources map onto the same target domain. The analysis of many of the examples in our corpus has required taking into account the *Theory of the Multiple Selves* (Lakoff 1996), which captures a cultural model according to which humans are seen as consisting of two aspects: the Subject and the Self. The former is a person's rational, controlled nature, and the latter his or her bodily and emotional aspects. The application of this cultural model has proven useful to address some analytical issues, which is suggestive of the theoretical value of this largely neglected theory.

Finally, the extensive study of examples has also allowed us to postulate, although still programmatically, the existence of *binary amalgams*. Their actual import in the use of English will require further investigation.

REFERENCES

- Barcelona, A. (1995). 'Metaphorical models or romantic love in *Romeo and Juliet*'. *Journal of Pragmatics* 24(6), 667–689.
- Evans, V. (2014). *The Language Myth. Why Language Is Not an Instinct*. Cambridge University Press.
- Fauconnier, G. (2005). 'Compression and emergent structure'. *Language and Linguistics* 6(4), 523–528.
- Geeraerts, D. (2003). 'The interaction of metaphor and metonymy in composite expressions'. In R. Dirven & R. Pörings (eds) *Metaphor and Metonymy in Comparison and Contrast* (pp. 435–465). Berlin & New York: Mouton de Gruyter.
- Goldberg, A. (2006). *Constructions at Work: the nature of generalization in language*. Oxford: Oxford University Press.
- Goldberg, A. (2009). 'The nature of generalization in language'. *Cognitive Linguistics* 20(1), 93–127.
- Goossens, L. (1990). 'Metaphtonymy: the interaction of metaphor and metonymy in expressions for linguistic action'. *Cognitive Linguistics* 1(3), 323-340.
- Goossens, L. (2003). 'Metaphtonymy: the interaction of metaphor and metonymy in expressions for linguistic action [revised version]'. In R. Dirven & R. Pörings (eds) *Metaphor and Metonymy in Comparison and Contrast* (pp. 349–378). Berlin & New York: Mouton de Gruyter.
- Grady, J.E. (1997). *Foundations of Meaning. Primary Metaphors and Primary Scenes*. Unpublished PhD Dissertation at the University of California at Berkeley.

- Grady, J. (1999) 'A typology of motivation for conceptual metaphor: correlation vs. resemblance'. In R. W. Gibbs & G. Steen (eds) *Metaphor in cognitive linguistics* (pp. 79–100). Amsterdam & Philadelphia: John Benjamins.
- Grady, J.E. (2005). 'Primary metaphors as inputs to conceptual integration'. *Journal of Pragmatics* 37, 1595–1614.
- Grady, J, Coulson, S, and Oakley, T. 1999. Blending and metaphor. In R. Gibbs and G. Steen (eds.), *Metaphor in Cognitive Linguistics* (pp. 101-124). Amsterdam & Philadelphia: John Benjamins.
- Heyvaert, L. (2003). *A cognitive-functional approach to nominalization in English*. Berlin & New York: Mouton de Gruyter.
- Johnson, M. (1987). *The Body in the Mind: The Bodily Basis of meaning, Imagination, and Reason*. The Chicago: University of Chicago Press.
- Kövecses, Z. (1990). *Emotion Concepts*. New York: Springer-Verlag. 153-154.
- Kövecses, Z. (2010). *Metaphor: A Practical Introduction*. Oxford: Oxford University Press.
- Kövecses, Z. (2011). Recent developments in metaphor theory. Are the new views rival ones?. *Review of Cognitive Linguistics* 9(1), 11-25.
- Kövecses, Z. & Radden, G. (1998). 'Metonymy: Developing a cognitive linguistic view'. *Cognitive Linguistics* 9(1), 37-77.
- Lakoff, G. (1987). *Women, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: The University of Chicago Press.
- Lakoff, G. (1993). 'The contemporary theory of metaphor'. In A. Ortony (ed) *Metaphor and thought* (2nd ed.) (pp. 202–251). Cambridge: Cambridge University Press.
- Lakoff, G. (1996). 'Sorry, I'm not myself today: the metaphor system for conceptualizing the Self'. In G. Fauconnier & E. Sweetser (eds) *Spaces, worlds, and grammar* (pp. 91–123). Chicago: University of Chicago Press.

- Lakoff, G. (2003). 'The embodied mind and how to live with one'. In A. Sanford (Ed) *The Nature and Limits of Human Understanding* (pp. 47–108). London & New York: T&T Clark.
- Lakoff, G. & Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press.
- Lakoff, G. & Johnson, M. (1999). *Philosophy in the flesh*. New York: Basic Books.
- Lakoff, G. & Turner, M. (1989). *More than Cool Reason. A Field Guide to Poetic Metaphor*. Chicago and London: The University of Chicago Press.
- Lakoff, G. et al (1991). *Master Metaphor List*. California: University of California at Berkeley.
- Levin, B. (1993). *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press.
- Levin, B. & Rappaport Hovav, M. (2005). *Argument Realization, Research Surveys in Linguistics Series*. Cambridge: Cambridge University Press.
- Michaelis, L. (2003). 'Word meaning, sentence meaning, and syntactic meaning'. In H. Cuyckens, R. Dirven & J. Taylor (eds) *Cognitive approaches to lexical semantics* (pp. 93–122). Berlin & New York: Mouton de Gruyter.
- Oakley, T. & Pascual, E. (2017). 'Conceptual blending theory'. In B. Dancygier (ed) *The Cambridge Handbook of Cognitive Linguistics*. Cambridge: Cambridge University Press.
- Peña, M.S. (2008). 'Dependency systems for image-schematic patterns in a usage-based approach to language'. *Journal of Pragmatics* 40(6), 1041-1066.
- Peña, M.S. (2015). 'A constructionist approach to causative frighten verbs' *Linguistics* 53(6), 1247-1302
- Peña, M.S. (2016). 'Cognitive Mechanisms Underlying Fake Reflexive Resultatives'. *Australian Journal of Linguistics*, 36(4), 502-554.

- Peña, M.S. & Ruiz de Mendoza, F.J. (2009). 'Metonymic and metaphoric bases of two image-schema transformations'. In K.U. Panther, L. Thornburg & A. Barcelona (eds) *Metonymy and metaphor in grammar* (pp. 339–361). Amsterdam & Philadelphia: John Benjamins. pp. 339–361
- Pérez-Hernández, L. & Duvignau K. (2016). 'Metaphor, metonymy, and their interaction in the production of semantic approximations by monolingual children: A corpus analysis'. *First Language* 36(4), 383-406.
- Pérez-Hernández, L. & Ruiz de Mendoza, F.J. (2002). 'Grounding, semantic motivation, and conceptual interaction in indirective speech acts'. *Journal of Pragmatics* 34, 259–284.
- Pérez-Sobrinho, P. (2016). 'Multimodal Metaphor and Metonymy in Advertising: A Corpus-Based Account'. *Metaphor & Symbol* 31(2), 73-90.
- Postal, P. (2010). *Edge-Based Clausal Syntax: A Study of (Mostly) English Object Structure* Cambridge, Massachussets: MIT Press.
- Radden, G. (2000). 'How metonymic are metaphors?'. In A. Barcelona (ed) *Metaphor and Metonymy at the Crossroads* (pp. 93–108). Berlin & New York: Mouton de Gruyter.
- Radden, G. & Dirven, R. (2007). *Cognitive English Grammar*. Amsterdam & Philadelphia: John Benjamin Publishing House.
- Rosca, A. (2012). *Bases for the development of ontological semantics within the conceptual domains of change and possession. Implementations and implications for the lexico-syntactic-cognition interface and the development of intelligent agents*. Unpublished PhD dissertation. Logroño: University of La Rioja.
- Ruiz de Mendoza, F. J. (1998). On the nature of blending as a cognitive phenomenon. *Journal of Pragmatics*, 30, 259–274.

- Ruiz de Mendoza, F.J. (2000). 'The role of mappings and domains in understanding metonymy'. In A. Barcelona (ed) *Metaphor and metonymy at the crossroads* (pp. 109–132). Berlin & New York: Mouton de Gruyter.
- Ruiz de Mendoza, F.J. (2007). 'High-level cognitive models: In search of a unified framework for inferential and grammatical behavior'. In K. Kosecki (ed) *Perspectives on metonymy* (pp. 11–30). Frankfurt am Main: Peter Lang.
- Ruiz de Mendoza, F.J. (2011). 'Metonymy and cognitive operations'. In R. Benczes, A. Barcelona & F.J. Ruiz de Mendoza (eds) *Defining metonymy in Cognitive Linguistics. Towards a consensus view* (pp. 103–123). Amsterdam & Philadelphia: John Benjamins.
- Ruiz de Mendoza, F.J. (2013). 'Meaning construction, meaning interpretation, and formal expression in the Lexical Constructional Model'. In B. Nolan & E. Diedrichsen (eds) *Linking constructions into functional linguistics: The role of constructions in grammar* (pp. 231–270). Amsterdam & Philadelphia: John Benjamins.
- Ruiz de Mendoza, F.J. (2014). 'On the nature and scope of metonymy in linguistic description and explanation: towards settling some controversies'. In J. Littlemore & J. Taylor (eds) *Bloomsbury companion to Cognitive Linguistics* (pp. 143–166). London: Bloomsbury.
- Ruiz de Mendoza, F.J. (2017). 'Metaphor and other cognitive operations in interaction: From basicity to complexity'. In B. Hampe (ed) *Metaphor: Embodied Cognition, and Discourse* (pp. 138–159). Cambridge: Cambridge University Press.
- Ruiz de Mendoza, F.J. & Díez, O. (2002). 'Patterns of conceptual interaction'. In R. Dirven, & R. Pörings (eds) *Metaphor and metonymy in comparison and contrast* (pp. 489–532). Berlin & New York: Mouton de Gruyter.
- Ruiz de Mendoza, F.J. & Galera-Masegosa, A. (2011). 'Going beyond metaphonymy: Metaphoric and metonymic complexes in phrasal verb interpretation'. *Language Value* 3(1), 1–29.

- Ruiz de Mendoza, F.J. & Galera-Masegosa, A. (2012) 'Metaphoric and metonymic complexes in phrasal verb interpretation: metaphoric chains'. In B. Eizaga (ed) *Studies in linguistics and cognition* (pp. 157–185). Bern, Switzerland: Peter Lang Verlag.
- Ruiz de Mendoza, F.J. & Galera-Masegosa, A. (2014). 'Cognitive Modeling. A Linguistic Perspective'. In K-U. Panther, L. Thornburg & A. Barcelona (eds) *Human Cognitive Processing. Cognitive Foundations of Language Structure and Use* (pp. 85-166). Amsterdam & Philadelphia: John Benjamins.
- Ruiz de Mendoza, F.J., & Mairal, R. (2007). High-level metaphor and metonymy in meaning construction. In Radden, G., Köpke, K. M., DBerg, T., and Siemund, P. (Eds.), *Aspects of meaning construction* (Pp. 33-49). Amsterdam & Philadelphia: John Benjamins.
- Ruiz de Mendoza, F.J., & Mairal, R. (2008). 'Levels of description and constraining factors in meaning construction: an introduction to the Lexical Constructional Model'. *Folia Linguistica. Acta Societatis Linguisticae Europaea*, 42(2): 355–400.
- Ruiz de Mendoza, F.J. & Mairal, R. (2011). 'Constraints on syntactic alternation: lexical-constructional subsumption in the Lexical Constructional Model'. In P. Guerrero (ed) *Morphosyntactic alternations in English. Functional and cognitive perspectives* (pp. 62–82). London & Oakville: Equinox.
- Ruiz de Mendoza, F.J. & Pérez, L. (2011). 'The contemporary theory of metaphor: Myths, developments and challenges' *Metaphor and Symbol* 26, 161–185
- Simpson, J. (1983). 'Resultatives'. In L. Levin, M. Rappaport & A. Zaenen (eds) *Papers in Lexical-Functional Grammar* (pp. 143–158). Bloomington: Indiana University Linguistics Club.
- Talmy, L. (1988). 'Force Dynamics in Language and Cognition'. *Cognitive Science* 12, 49-100.

Talmy, L. (2000). *Toward a Cognitive Semantics, Vol. I: Concept structuring systems*. Cambridge, MA: MIT Press.